

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CLAIMS

I claim:

1. A steering system for a boat having an outboard motor with a jet drive output comprising:

a) a directional nozzle, pivotably mounted to said outboard motor such that said directional nozzle surrounds said jet drive output and extends backward therefrom;

b) an actuator, mounted on said boat;

c) a cable having two ends, the first end of said cable being attached to said directional nozzle and the second end of said cable being attached said actuator; and

d) a joystick controller, connected to said actuator to control the steering of said boat.

2. The steering system of claim 1 further comprising:

a) a reversing cup, pivotably mounted to said outboard motor such that said extends backward from said jet drive;

b) a second actuator, mounted on said boat;

c) a second cable having two ends, the first end of said cable being attached to said reversing cup and the second end of said cable being attached said second actuator; and

d) a joystick controller, connected to said second actuator to control said boat.

3. A steering system for a boat having an outboard motor with a jet drive output comprising:

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1 a) a directional nozzle, pivotably mounted to said outboard motor such that said
2 directional nozzle surrounds said jet drive output and extends backward therefrom;

3 b) a first actuator, mounted on said boat;

4 c) a first cable having two ends, the first end of said first cable being attached to
5 said directional nozzle and the second end of said first cable being attached said first
6 actuator;

7 d) a reversing cup, pivotably mounted to said outboard motor such that said
8 extends backward from said jet drive;

9 e) a second actuator, mounted on said boat;

10 f) a second cable having two ends, the first end of said cable being attached to
11 said reversing cap and the second end of said cable being attached said second actuator;
12 and

13 g) a joystick controller, connected to said first and second actuators to control
14 said boat, whereby said joystick controller has a first set of switches that engage said
15 first actuator to steer the boat from left to right by moving said directional nozzle, and a
16 second set of switches that engage said second actuator to move the boat in a forward
17 or reverse direction by moving said reversing cup.

18 4. A steering system for a boat having a convention outboard motor having a
19 throttle lever, a transmission lever and a steering arm comprising:

20 a) a first servomotor, operably attached to said throttle lever;

21 b) a solenoid, operably attached to said transmission lever;

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1 c) a second servomotor, operably attached to said steering arm; and

2 d) a joystick controller, electrically connected to said first, second and third
3 servomotors to control said boat, whereby said joystick controller has a first switch that
4 controls said first servomotor to control the throttle lever, a second set of switches that
5 engage said solenoid to move the boat in a forward or reverse direction by controlling
6 said transmission lever, and a third set of switches to control said second servo motor to
7 steer the boat from left to right by moving said steering arm.

8 5. The steering system of claim 4 wherein the first, second and second
9 servomotors are forward-reverse, worm-drive electric servomotors.

10 6. The steering system of claim 4 further comprising a reverse lock switch,
11 mounted on said joystick.